What is claimed is:

[Claim 1]   A method for inducing new data to a web page at a client device, said method comprising: containing, at least one dynamically loaded and updated web page; manipulating, DOM (Document Object Model) components from within a web browser at the said client device in pursuant, but not limited to user input; apparatus for memorizing, recording the states of each web page into DOM; correlating, differences between different stages of each dynamic web page; enabling, operations on multiple said web pages parallelly.

[Claim 2]   A method for recording user interaction states on a user agent, which is a computer program, or web browser, such that an unlimited amount of said state information could be retained locally in the said user agent or web browser's volatile memory, without the need for the web application server, which is another computer program not necessarily residing on the same computer, to keep track of said state information in the said server's storage, by manipulating said user agent or web browser's in-memory Document Object Model tree or comparable tree structure, which is a rendered representation of data transmitted from said server, comprising any or a plurality of the following:

(a)   creating new node tagged with attribute value equivalent to either "active" or "inactive" to said in-memory Document Object Model tree or comparable tree structure;

(b)   removing existing node tagged with attribute value equivalent to either "active" or "inactive" from said in-memory Document Object Model tree or comparable tree structure;

(c)   tagging existing node with attribute value equivalent to either "active" or "inactive" from said in-memory Document Object Model tree or comparable tree structure.

[Claim 3]   A method of constructing a computer software system utilizing the method of Claim 2, which comprises the steps of:

(a)   construct computer program instruction capable of being executed or interpreted by a user agent or web browser such that

the execution or interpretation of the said instruction could result in the rendering of visual or textual data, which are transmitted from a web application server, on said user agent or web browser;

(b) construct computer program instruction capable of being executed or interpreted by a user agent or web browser that could perform manipulation of in-memory Document Object Model tree or comparable tree structure on said user agent or web browser, such as described in Claim 2, and associate or register said computer program instruction with designated Document Object Model tree node that is rendered as visual presentation element that computer user could interaction with and thereby cause or initiate the execution or interpretation of said instruction on said user agent or web browser;

(c) construct computer program instruction that could be executed or interpreted on a web application server which generates output data in the form of computer program instruction such as (a) and (b) described in above steps and transmits them to user agent or web browser that requests said data.